

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019088**Date Inspected:** 11-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Xu Tao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Bike Path**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 007726

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment 14W. The weld designations reviewed are as follows:

1. SEG3020AZ-013, 008

Magnetic Particle Testing (MT) – NWIT Document No's: 007732

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Suspender Bracket. The weld designations reviewed are as follows:

1. SB021-100-051, 052, 057, 058, 063, 042, 053, 054, 065, 023, 024, 035, 036

2. SB021-100-002, 003, 021, 022, 024, 028, 039, 045, 046

3. SB021-100-006, 077, 009, 010, 012, 015, 016, 017

4. SB021-100-025, 031, 037, 043, 049, 055, 004, 005, 007, 008, 019, 020

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

Description of Incident: During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Suspender Bracket SB100W and 100E, this Quality Assurance Inspector (QA) discovered that two (2) lack of fusion measuring approximately 10-12mm in length. The weld is identified as: SB021-100-002. This weld is a fillet weld joining the side plate to web stiffener. This weld is designated as non Seismic Performance Critical Member (non SPCM). The indication is clearly marked on the material near the weld. OBG Suspender Bracket is located South Side of Bay 19 area. The Indication is located within an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld. The ZPMC QC is identified as Mr. Xu Tao. See the attaché picture.

Bay 19

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint SB022-104-005 located on Suspender Bracket SB104W. ZPMC Welder is identified as 058792. ABF Quality Control (QC) is identified as Mr. Peng Wen Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2331-ESAB.

FCAW welding of weld joint SB023-106-005 located on Suspender Bracket SB106E. ZPMC Welder is identified as 062732. ABF Quality Control (QC) is identified as Mr. Peng Wen Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2331-ESAB.

FCAW welding of weld joint SB023-104-005 located on Suspender Bracket SB104E. ZPMC Welder is identified as 062783. ABF Quality Control (QC) is identified as Mr. Peng Wen Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2331-ESAB.

FCAW welding of weld joint SB022-106-005 located on Suspender Bracket SB106W. ZPMC Welder is identified as 062732. ABF Quality Control (QC) is identified as Mr. Peng Wen Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2331-ESAB.

ZPMC personnel performing heat straightening on bottom cover plate of OBG bike path member identified as BK004A-006-014~021. Distortion appeared to be caused by mishandling of the welding/material. ZPMC Quality Control (QC) inspector identified as Mr. Xu Tao was present to monitor the heat straightening process. The heat straightening appeared to comply with HSR1 (B) number 9501.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint BK004B6-001-003 and 153 located on OBG Bike path. ZPMC welder is identified as 062814. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-4G (4F) - Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2430.

This QA inspector observed ABF personnel performed Magnetic Particle Testing on Suspender Bracket SB102E and SB102W.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable

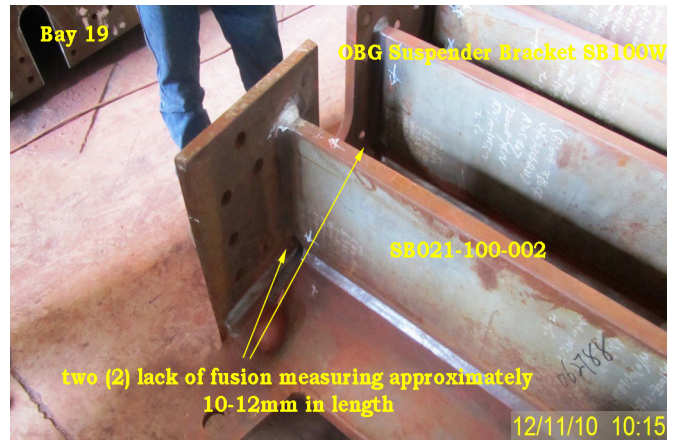
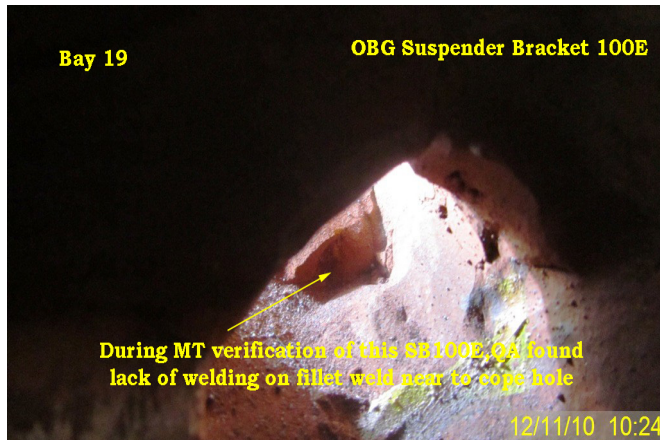
---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

---

**Inspected By:** Kumar,Vibin

Quality Assurance Inspector

---

**Reviewed By:** Patel,Hiranch

QA Reviewer